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Clarifying Legal Drafting By Well Structuring It: An Improved Version Of The PLAIN LANGUAGE Game

by
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1. INTRODUCTION

In order to be plain, language should be well-structured. This is the theory upon which the PLAIN LANGUAGE Game is based. It provides those who aspire to be legal drafters with practice in constructing well-structured statements — a useful skill for expressing clear legal norms.

You have already encountered the underlining of part of the term 'well-structured', 'PLAIN LANGUAGE' and 'norm', and may be wondering about it. The underlining of the first two letters of each word of a term indicates that the term is a defined term and that it is being used in its defined sense. Thus, a well-structured statement has the property of being well-structured in a defined sense of the term 'well-structured'. The term is defined by the following contextual definition.

1. A statement is well-structured, IF AND ONLY IF
2. the relationships between its constituent sentences are expressed by defined structural terms.

In order to understand this definition it is necessary to know what a defined structural term is. One example is the term 'IF AND ONLY IF' that expresses the relationship of the first sentence of the definition above to its second sentence. Using defined structural terms in their defined senses is indicated by expressing them (all the letters of them) in capital letters. Here, it is apparent that the definition of 'well-structured' is itself well-structured, because the relationship between its two constituent sentences is expressed by a defined structural term.

The rest of this paper will be devoted to setting forth the rules that define the PLAIN LANGUAGE Game. In the course of doing that, the terms 'norm' and 'defined structural term' are extensively used; so their definitions will also subsequently be set forth. The objective of developing the PLAIN LANGUAGE Game is to help legal drafters develop skill in expressing clear legal norms. It should perhaps be noted that the skill developed is two-edged in the sense that it can also be used for purposes of expressing unclear legal norms. The legal drafter needs, of course, to be adept at both.

The PLAIN LANGUAGE Game is a resource-allocation game similar to WFF 'N PROOF, EQUATIONS, and ON-SETS. Those familiar with any one of these games will recognize a similar pattern in the PLAIN LANGUAGE Game (hereafter, the PL Game). Different aspects of each of these three games are present in the PL Game, along with aspects of the QUERIES 'N THEORIES Game.

The subject matter dealt with in the PL Game is the structure of legal writing. However, that subject is not dealt with in its entirety in the play of PL. Rather, attention is focused upon one of legal writing's fundamental, but most neglected, aspects — the structural relationships between the sentences that are contained in a statement that expresses more than one legal proposition. All of the statements that players of the PL Game seek to construct are in a defined universal norm (UN) form. Since UN form is well-structured, players of PL get

plenty of opportunity to deal with problems of constructing complex well-structured legal statements. Statements that are in UN form are either conditionals (IF . . . , THEN . . .) or denials of conditionals (IT IS NOT SO THAT IF . . . , THEN . . .). For example, the following statement is in UN form:

If certain specified conditions are met.
THEN certain specified legal results occur.

As is the following statement:

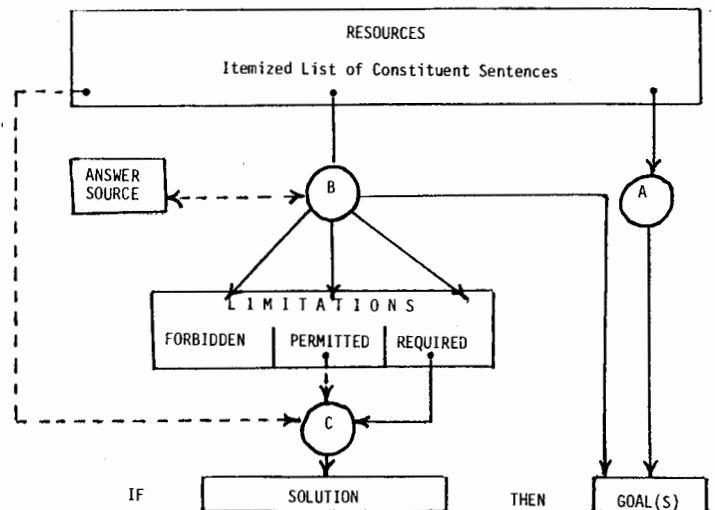
IT IS NOT SO THAT IF certain other conditions are met, THEN certain specified legal results occur.

This is only a brief introduction to the UN form. It is defined and fully discussed in Section 8. A statement in UN form is called a norm.

Each match of PL is intended to be played only once by each player. In addition to providing learners an opportunity to practise constructing complex well-structured legal statements, a secondary purpose of PL play is to familiarize participants with the content of the statute, rule, or regulation being considered in that particular match. Teachers who want their students to become familiar with particular statutory or other provisions can construct matches of PL by specifying (a) the list of constituent sentences in the statement of that provision and (b) how they are structurally related — that is, what the UN form of that statement is.

In the course of PL play, participants can ask questions about the norm being sought. Some means of answering those questions must be provided for in the play. There are at least three options: (1) the teacher can provide the answers, (2) answers can be made available from a computer, or (3) a student-referee can be supplied with information to provide answers. In most situations the third will be the most practical alternative. It should be noted that the role of referee is also a useful one for learning purposes.

2. OUTLINE PLAN OF THE PL GAME



- A. The first player starts the process of setting the GOAL(S) by setting one result as (part of) the GOAL(S).

- B. Then, the players take turns in making a move, which consists of:
1. optionally seeking information about the norm by asking the ANSWER SOURCE a question, and
 2. moving RESOURCES either to one of the LIMITATIONS sections or to the GOAL(S) until somebody
 - a) challenges, or
 - b) declares force-out.

The challenge of force-out declaration ends the match. It puts the burden of proof on somebody to show

1. what the norm is, and
2. that a SOLUTION is still possible from the RESOURCES in PERMITTED and REQUIRED, and the unmoved RESOURCES that are allowed.

- C. The sustaining of the burden of proof (or failure to do so) determines the scoring and ends the match. IF the burden of proof to show the norm is sustained, THEN the match ends immediately, BUT OTHERWISE, the optional asking of questions continues (but the moving of RESOURCES stops) until somebody can show what the norm is, and then the match ends.

(After reading this brief sketch of the PL game, you should jump ahead to Section 7 and read the account of a sample match.)

3. ABC SUMMARY OF THE PL GAME

A. Starting

In the PL Game the first player starts the process of setting the GOAL(S) by setting one result as (part of) the GOAL(S).

1. The GOAL(S) is/are a set of one or more lower-case letters that represent sentences that express some or all of the legal results of the norm.
2. A SOLUTION to the GOAL(S) is a set of one or more lowercase letters that represent sentences that express a set of conditions that are sufficient, when fulfilled, to reach the GOAL(S) set by application of the norm.
3. The conditions of a norm are expressed by the sentences that follow the 'IF' and precede the 'THEN'.
4. The results of a norm are expressed by the sentences that follow the 'THEN'.

B. Playing and ending

Then, the players take turns making plays. On a play it is optional for a player to seek information about the norm by asking the ANSWER SOURCE a question. However, on every play a player moves a RESOURCE either to one of the LIMITATIONS sections or to the GOAL(S) until somebody challenges or declares force-out.

On a turn, after asking (or not asking) a question, a player can either move, challenge, or declare force-out, or add to the GOAL(S) see chart for ANALYSIS OF PREVIOUS MOVE in Section 4.

1. If a player moves, he is claiming that three things are true.

- a) The mover is claiming about the situation in which he moves and after the move:

That's right, : :	it can be done : :	but . . . not with one, : :
<u>C-claim</u>	<u>P-claim</u>	<u>A-Claim</u>
Because the previous play of a RESOURCE is not a flub, I (C)annot correctly challenge on this turn	It is still (P)ossible for the remaining RESOURCES to be so played that a SOLUTION can be built	If I can, by this move I am (A)voiding allowing a SOLUTION to be built by moving just one more RESOURCE to the PERMITTED section

- b) If any of the mover's claims are false, then the mover has flubbed— a C-flub for a false C-claim, a P-flub for a false P-claim, or an A-flub for a false A-claim. By challenging, the challenger is saying to the mover:

C-flub. You could have (C)orrectly challenged (and should have) instead of moving.

P-flub. Your move has (P)revented all SOLUTIONS.

A-flub. Your move has (A)llowed a SOLUTION with one or more unmoved RESOURCE when you were not forced to do so.

2. If a player challenges, he is declaring that the mover has flubbed. After a challenge, either the challenger or the mover will have the burden of proving that there is a SOLUTION.

a) The burden of proof depends on the kind of challenge that is made: the mover has the burden on a P-flub or a C-flub that stems from a P-flub (that is, a CP-flub), and on the other kinds of challenges the challenger has the burden. In general, the player who is claiming that there is a SOLUTION in the situation is the one who has the burden of proof.

b) Any player except the one who has just moved can challenge at any time; a player does not have to wait until his/her turn in order to challenge.

c) After the challenger has specified the kind of flub, the third player must join either the mover or the challenger. If the one that joined has the burden of proof, then the joiner also has the burden; otherwise, not.

d) Upon declaration of a C-flub stemming from a A-flub (a CA-flub) or a C-flub stemming from a P-flub (a CP-flub), those with the burden of proof must show that there was a SOLUTION with the LIMITATIONS imposed by the moves that had been made when the prior A-flub or P-flub occurred. Upon declaration or any other kind of flub (P or A), those with the burden of proof must show that there is a SOLUTION with the LIMITATIONS imposed by the moves that have been made on the Playing Mat at the time that the challenge is made. With A-flub or CA-flub challenges, only one of the unmoved RESOURCES

can be used in the SOLUTION, however with P-flub or CP-flub challenges, those with the burden of proof can use as many of the unmoved RESOURCES as they like. On A-flub and CA-flub challenges, those with the burden of proof must also show that the mover who made the alleged A-flub was not forced to do so — that he had an alternative move that neither prevented all SOLUTIONS nor allowed a SOLUTION with one more of the unmoved RESOURCES (an OK move).

Playing Mat

FORBIDDEN	PERMITTED	REQUIRED
The RESOURCES played here <i>must not</i> be used in the expression offered as a SOLUTION.	The RESOURCES played here <i>may</i> be used in the expression offered as a SOLUTION, but they do not have to be used.	The RESOURCES played here <i>must</i> be used in the expression offered as a SOLUTION.

- If a player declares force-out, he is saying that a SOLUTION is possible with one more RESOURCE, but there is no flub. The effect of a force-out declaration is to put the burden of proof upon all of the players (including the declarer).

C. Winning

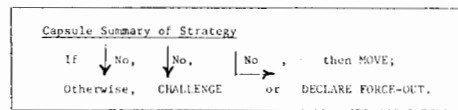
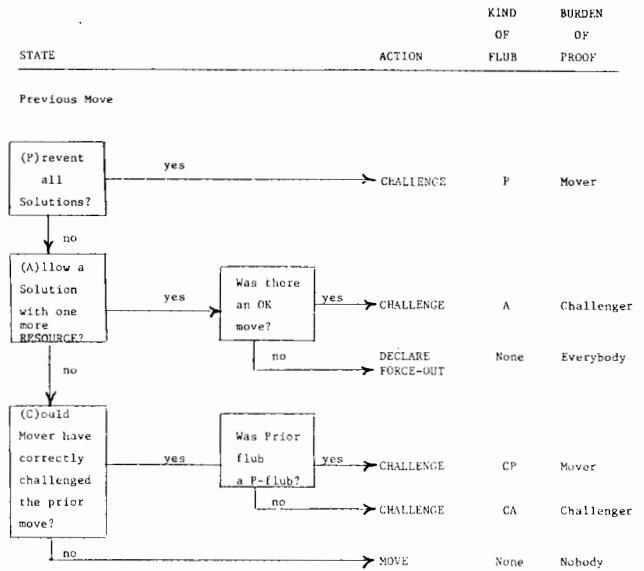
A player wins (or ties for winning) a match who scores the highest number of points in that match: a player scores 25 points for being among the first to construct the norm; a player scores 8 or 10 points on the attempt to construct a SOLUTION if (1) he has the burden of proof and sustains it, or (2) he does not have the burden of proof, and nobody who has the burden of proof sustains it; otherwise, a player scores 6 or 0 points.

SCORING CHART:

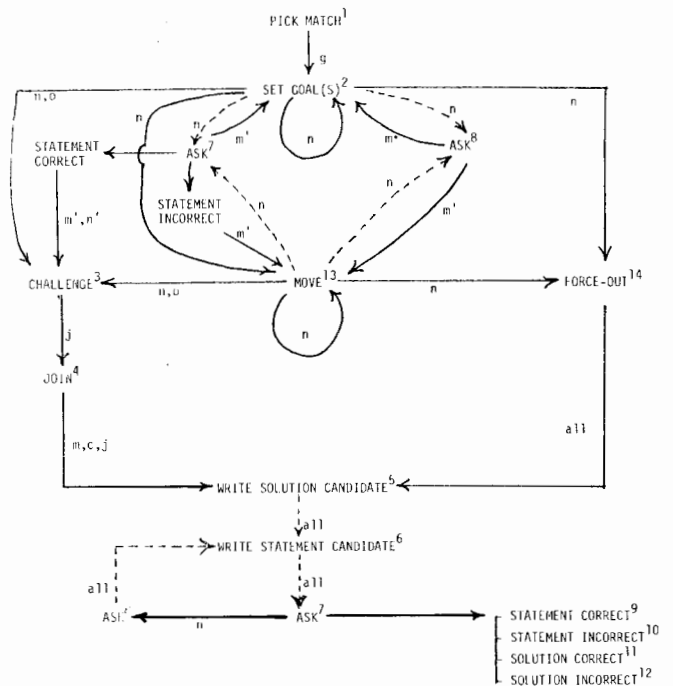
Summary of Scoring at End of Match

Type of Ending	Role of Player			
	Challenger	Mover	Joiner	
	C	M	With C	With M
Challenge				
Has burden of proof				
Sustains it	10	10	8	10
Does not sustain it	6	6	6	6
Does not have burden				
Somebody sustains it	6	6	6	6
Nobody sustains it	10	10	8	10
Force-Out	Declarer	Others		
Sustains burden of proof	8	8		
Does not sustain it	0	6		

4. Analysis of Previous Move – Criteria for Action



5. Flow Chart Summary of the PL Game



ABBREVIATIONS

- g [G]oal-setter, the player whose turn it is to set the GOAL
- m [M]over, the player who has just made a move (includes the goal-setter)
- m' [M]over', the player who has just asked a question and whose turn it is to move
- n [N]ext player, the one whose turn it is to play next — the one to the left of the mover or to the left of the player who asked the previous classification-relational question when moves have ended
- o [O]ther player, the one to the right of the mover
- n, o n or o
- c [C]hallenger, the player who challenges either n or o, never m
- j [J]oiner, the player who joins neither m nor c
- Optional
- One of these alternatives is required.

1. Pick Match

The players PICK THE MATCH that they are going to play. Each match will deal with a different provision — a statute, a regulation, a legal rule, a constitutional provision, or some other statement of a set of legal propositions. Players will usually play a given match only one time. Each match has a unique name to identify it. A match consists of a list of sentences and data to be used by the ANSWER SOURCE. If the APPLE II or some other micro-computer is to serve as the ANSWER SOURCE to answer players' questions about the structure of the statement in UN form, the data about that structure will be recorded on a diskette. If the instructor or a student-referee is to serve as the ANSWER SOURCE, the data will be expressed in the form of an ARROW-DIAGRAM to be used by the instructor or student.

2. Set Goal(s)

The first player, the goal-setter (g), starts the process of SETTING THE GOAL(S). He does so by naming a letter that he believes represents a sentence on the list of sentences for the match that expresses a result in the norm. Other players (including the goal-setter) may add in later play other letters that they believe also represent sentences that express results (see ¹³).

After the first part of the GOAL(S) is set, the players take turns making plays. On each play, the player (1) may ask a question, and (2) must move a RESOURCE, challenge, or declare force-out. RESOURCES are either added to the GOAL(S) or put in FORBIDDEN, PERMITTED, or REQUIRED. If a RESOURCE is put in FORBIDDEN, then it *must not* appear in any expression offered as a SOLUTION. If a RESOURCE is put in REQUIRED, then it *must* appear in any expression offered as a SOLUTION. If a RESOURCE is put in PERMITTED, then it *may* be used in any expression offered as a SOLUTION, but it *need not* be. After a RESOURCE is moved, one of the following will occur next:

- a) either the next player (n) or the player (o) will challenge (see³), or
- b) the next player will ask a question (see ⁷ and ⁸), or
- c) the next player will move a RESOURCE (see ¹³), or
- d) the next player will declare force-out (see ¹¹ and ¹²), or
- e) the next player will add a RESOURCE to the GOAL(S), (see²).

3. Challenge

If either the next player or the other player challenges, the ending of the match is set in motion; there will be no more moves. Only the questioning will continue, and that, only until somebody determines what the norm is by asking an appropriate ultimate question. Players, other than the mover (m), may make any one of the four following types of challenge:

- A) **P-challenge.** A challenge that the mover has made a P-flub (that he has (P)revented the last of the possible SOLUTIONS so that, no matter how the remaining RESOURCES are played, it will not be possible to write a SOLUTION).
- B) **A-challenge.** A challenge that the mover has made an A-flub (that he has (A)llowed a SOLUTION to be written with at most one more of the remaining RESOURCES in circumstances where he was not forced to do so).
- C) **CP-challenge.** A challenge that the mover has made a CP-flub (that he has made a C-flub stemming from a prior P-flub by failing to (C)hallenge the prior P-flub or a prior CP-flub when he could have done so correctly).
- D) **CA-challenge.** A challenge that the mover has made a CA-flub (that he has made a C-flub stemming from a prior A-flub by failing to (C)hallenge the prior A-flub or a prior CA-flub when he could have done so correctly).

A challenge may be made by players (other than the mover) either immediately after the GOAL(S) are set or added to, or a move is completed. The challenger (c) must specify what kind of challenge is made, which will determine whether there are one or two parts to the burden of proof, and whether the mover or the challenger shall have that burden.

A challenge may also be made by the mover (m¹) and the player to his left (n¹), after an ultimate question has been asked by the player whose turn it is to play following a move or a GOAL(S) addition.

4. Join

The joiner (j) must JOIN with either the challenger or the mover. If the player who is joined has the burden of proof, then the joiner also has the same burden of proof, but he must sustain it independently. If the player who is joined does not have the burden of proof, then neither does the joiner.

5. Write a Solution Candidate

- A) If the challenge made is that the move is a P-FLUB or a CP-FLUB, then the burden of proof is upon the mover, and there is

only one part to that burden: to WRITE A SOLUTION — that is, list of letters that uses all of the RESOURCES that have been moved to the REQUIRED section (the required RESOURCES), none of the forbidden RESOURCES (those moved to the FORBIDDEN section), and *as many of* the permitted RESOURCES (those moved to the PERMITTED section) and *of the remaining RESOURCES* (those not moved anywhere yet) as the player with the burden wishes. The list of letters that the mover writes (and the list that the joiner writes if he has joined the mover on this kind of challenge) must represent a sufficient set of CONDITIONS to reach the GOAL(S) by the norm and may be CORRECT or INCORRECT (see ¹¹ and ¹²).

- B) If the challenge made is that the move is an A-flub or a CA-flub, then the burden of proof is upon the challenger, and there are two parts to that burden. The first part is to WRITE A SOLUTION — that is, list of letters that uses all of the required RESOURCES, none of the forbidden RESOURCES, as many of the permitted RESOURCES as the player with the burden wishes, and *at most one of the remaining RESOURCES*. For A-flub challenges, the SOLUTION must be written in the situation that prevails immediately after the move claimed to be the A-flub. For CA-flub challenges, the SOLUTION must be written in the situation that prevailed immediately after the move claimed to be the A-flub from which the claimed CA-flub stems. The second part of the challenger's burden of proof is to WRITE AN OK MOVE that the mover could have made in the situation (a move that does not make a P-FLUB and that also does not allow a SOLUTION with at most one more of the remaining RESOURCES). For A-flub challenges the OK move must be written in the situation that prevailed immediately before the move claimed to be the A-flub. For CA-flub challenges the OK move must be written in the situation that prevailed immediately before the move claimed to be the A-flub from which the claimed CA-flub stems. The list of letters written may be either CORRECT or INCORRECT (see ¹¹ and ¹²).
- C) In force-outs, there is only one part to the burden of proof: to show that a SOLUTION can be written in the situation (see ¹⁴). The list written may be either CORRECT or INCORRECT (see ¹¹ and ¹²).

6. Write a Statement Candidate

To determine whether the SOLUTION candidates written by those who have the burden of proof (see⁵) are in fact SOLUTIONS, it is necessary to determine first what the norm is. A SOLUTION is, by definition, any set of RESOURCES that represent conditions expressed by sentences which, when met, are sufficient to reach the result(s) designated as the GOAL(S) by virtue of the rules expressed by the norm. So, after a challenge is made or a force-out declared, and those with the burden of proof have attempted to write a SOLUTION, any of the players may attempt to write the norm. The norm statement that the players are seeking will contain the sentences for the match in the order in which they are listed. This attempt is optional for each of the players, but each attempt will elicit information about its relationship to the norm for this match.

7. Ask

Each attempt to write the norm will pose the following question to the ANSWER SOURCE:

Is this the norm?

This type of question is called an ultimate question. An ultimate question can be asked in either of two situations: (A) by the next player, when it is his/her turn to play, after the mover has just added to the GOAL(S) or moved, and (B) by all of the players after a challenge or force-out declaration when those with the burden of proof have finished writing their SOLUTION CANDIDATES or when the next player has finished asking his classification-relational question. The ANSWER SOURCE will provide four kinds of answers to the ultimate questions posed by such attempts to state the NORM:

- (1) **CONGRATULATIONS.** Your candidate is the norm or a statement equivalent to it. You have written the statement in UN form that is being sought for purposes of this match or a statement that says the same things.
- (2) **MORE.** Your candidate is stronger than the norm. It says *more* than the norm says.
- (3) **LESS.** Your candidate is weaker than the norm. It says *less* than the norm says.
- (4) **MORE AND LESS.** Your candidate is stronger in some respects than the norm and weaker than the norm in other respects. It both says *more* and says *less* than the norm says.

called the mover and labelled m^1 on the Flow Chart) must complete his turn by making a move or adding to the GOAL(S) (see 2).

A player moves by transferring one of the remaining resources to the FORBIDDEN, PERMITTED, or REQUIRED, sections of the playing mat. At this stage of play the next player after this mover has six options:

- (A) to challenge (see 3), or
- (B) to declare force-out see 15), or
- (C) to move (see 13), or
- (D) to ask a question and move (see 7, 8, and 13) or
- (E) to add to the GOAL(S) (see 2), or
- (F) to ask a question and add to the GOAL(S) (see 7, 8 and 2).

If there is just one unmovable resource left, a player must challenge or declare force-out; a resource cannot be transferred. Also at this stage, the other player has the option of challenging and does not have to wait until it is his turn to play in order to challenge. Typically, play will cycle through a series of moves and GOAL(S) additions by the players in this complex nest of 2-7-8-13 loops until somebody ends the moving in the match by challenging (see 3) or declaring force-out (see 14).

14. Force-out

The only player who can declare force-out is the next player (n). He may do so when it is his turn after a move has been made or the GOAL(S) have been set or added to. If the next player chooses to declare force-out on his turn, then the ending of the match is set in motion; there will be no more moves. Only the questioning will continue, and that only until somebody determines what the norm is by asking an appropriate ultimate question. Declaring force-out puts the burden of proof on each of the players to show that a SOLUTION can be written in the situation — that is, a list of letters that uses all of the required RESOURCES, none of the forbidden RESOURCES, as many of the permitted RESOURCES as the player with the burden wishes, and at most one of the remaining RESOURCES (see 5C).

6. RULES OF THE PL GAME

A. GOAL Rule

On your turn to start a match, you must start the process of setting the GOAL(S) by selecting a letter from the list that represents the sentences for that match and putting it on the GOAL(S) line.

COMMENTS:

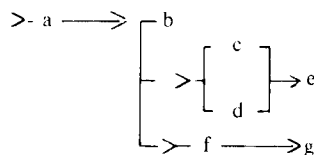
1. The GOAL(S) are results of the norm. If a condition is set as part of the GOAL(S), that move will be a P-flub, because there will be no sufficient set of conditions for reaching that part of the GOAL(S) by virtue of the norm.
2. The GOAL(S) may be changed on later moves by adding additional parts.

B. Question Rule

When you are the next player and it is your turn to play, there are two situations where you have the option of asking a question and one situation where you must ask a question. In addition, there is another situation where you have an option to ask a question even though it is not your turn to play. There are three types of questions that may be asked: (1) ultimate questions, (2) classification-relational questions, and (3) ultimate or classification-relational questions. After a mover has set GOAL(S) or made a move, you *may* ask a type-3 question. When all players have the opportunity to write a statement candidate, you may ask an ultimate question by writing a statement candidate; it need not be your turn to have this option to ask an ultimate question. After ultimate questions have been asked, if none is CORRECT and it is your turn, you must ask a classification-relational question.

COMMENTS:

1. Ultimate questions ask: Are the sentences in the norm structurally related like this? Such questions are asked by ARROW-DIAGRAMS like this:



or by parenthesized statements like this:

IF a, THEN [b AND (IF c or d THEN e) AND (IF f, THEN g)].

or by parenthesized notation like this:

$a > (b \& [(c \vee d) | e] \&] f > g)$

All three of the above ask the same question — that is, indicate the same structure.

2. There are four kinds of answers to ultimate questions:

CONGRATULATIONS, MORE, LESS, and MORE AND LESS.

- A. CONGRATULATIONS. Your statement is correct; it says the same thing that the norm says.
- B. MORE. Your statement is stronger than the norm; it says *more* than the norm says.
- C. LESS. Your statement is weaker than the norm; it says *less* than the norm says.
- D. MORE AND LESS. Your statement is stronger than the norm in some respects and weaker in others; it both says *more* than the norm and *less* than the norm.

3. Classification-relational questions actually ask three separate questions: a question about which sentences express conditions, a question about which sentences express results, and a question about whether specified conditions are sufficient to reach specified results by the norm. Such questions are asked by letters before and after an implication sign (>) where the letters may or may not be preceded by a decimal point.

A. Conditions classification questions. (abc > . . .)

1. With decimal points.

The .abd > . . . part of the question .abd > .ef asks:

Do the sentences represented by a, b, and d express conditions?

2. Without decimal points.

The abd > . . . part of the question abd > .ef asks:

Do a, b, and d express conditions, and are all of the conditions in the norm expressed by a, b, and d?

B. Results classification questions (. . . > def)

1. With decimal points.

The . . . > .ef part of the question .abc > .ef asks:

Do e and f express results?

2. Without decimal points.

The . . . > ef part of the question .abc > ef asks:

Do e and f express results, and are all of the results of the norm expressed by e and f?

C. Relational questions.

The entire question and > cef also asks about the following relationship between conditions and results:

Are conditions a, b, and d sufficient to reach the results c, e, and f by the norm?

4. There are two answers to classification questions?
YES (Y) and NO (N). And there are three answers to relational questions: Y, N, and , where indicates that the question is not meaningful in the sense that it makes a false assumption.
5. For examples of questions and answers, see p. 18.

C. Move Rule

After the first part of the GOAL(S) is set, play progresses in a clockwise direction. When it is your turn to play, you must do one of the following:

- (1) challenge and specify the kind of flub (A, P, CA, or CP), or
- (2) declare force-out, or
- (3) move a remaining RESOURCE to the FORBIDDEN section, to the PERMITTED section, or to the REQUIRED section, or
- (4) ask an ultimate question or a classification-relational question and then move a remaining RESOURCE to one of the three sections, or
- (5) add a remaining RESOURCE to the GOAL(S), or
- (6) ask an ultimate question or a classification-relational question and then add a remaining RESOURCE to the GOAL(S).

When you are the next player, so that it is your turn to play after another player has added to the GOAL(S) or moved a RESOURCE, you have the same six options.

When there is only one remaining RESOURCE, your only options are the first two.

After a challenge has been made or a force-out declared, your only option on your turn is to ask a classification-relational question and you must do that. After every such question then, you (along with all of the other players) have the option to ask an ultimate question, but exercising that option is discretionary.

When it is your turn, you are not permitted to pass.

COMMENTS:

1. By their moves players shape the SOLUTION.
2. RESOURCES are not moved again after they are placed on the playing mat.

D. Bonus Rule

On your turn to play, you may take a bonus move before making a regular move or adding to the GOAL(S). A bonus move consists of saying "bonus" and moving a remaining RESOURCE to the FORBIDDEN section. If you do not say "bonus" before moving the RESOURCE to the FORBIDDEN section, the move does not count as a bonus move but as a regular move to FORBIDDEN.

COMMENTS:

1. The bonus rule has the effect of allowing a mover to move two RESOURCES to the playing mat — the first one to FORBIDDEN and the second one to any of the three sections.

E. SOLUTION Rule

The SOLUTION (the antecedent of an IF-THEN statement that expresses conjoined conditions) must express a sufficient set of conditions to reach all of the GOAL(S) (the consequent of the IF-THEN statement that expresses conjoined results) by application of the norm, and in attempting to write a SOLUTION:

1. you *must not* use any of the RESOURCES in the FORBIDDEN section; and
2. you *may* use as many of the RESOURCES in the PERMITTED section as you like; and
3. you *must* use all of the RESOURCES in the REQUIRED section; and
4. you *may* always use at least one RESOURCE from the remaining RESOURCES: you may use at most one RESOURCE from those remaining when there has been an A-flub challenge or a CA-flub challenge (see Flubbing Rule below), and you may use as many remaining RESOURCES as you like when there has been a P-flub challenge or a CP-flub challenge.

F. Flub Rule

By making a move, you make the following three CAP claims:

C-claim I (C)annot correctly challenge on this turn.

A-claim If possible, I am (A)voiding by this move allowing a SOLUTION to be written with at most one more RESOURCE from those that remain.

P-claim It is still (P)ossible for the remaining RESOURCES to be played so that a SOLUTION can be written.

If by your move, you violate any of these CAP claims, you have flubbed.

COMMENTS:

1. The three CAP claims are briefly summarized by the statement That's right; it can be done, but . . . not with one.

- | | | | |
|----|--|---------|---------|
| | C-claim | P-claim | A-claim |
| 2. | A mover flubs when he makes a false claim. An A-flub is an A-claim violation. A CA-flub is a C-claim violation stemming from a prior A-claim violation. A P-flub is a P-claim violation. A CP-flub is a C-claim violation stemming from a prior P-claim violation. | | |
| 3. | The P-claim means that you flub if you make a move that destroys all possibilities for building a SOLUTION. | | |
| 4. | The A-claim means that you flub if you make a move that permits a SOLUTION to be built with just one more RESOURCE from those that remain when you could have made a move that both avoided doing so and at the same time fulfilled the P-claim. Of course, when only two RESOURCES are left, you may have to move one of them into the PER- | | |

MITTED or the REQUIRED section and permit a SOLUTION to be built with just one more remaining RESOURCE because forbidding either RESOURCE violates the P-claim. This is a force-out situation rather than an A-claim violation, because in such circumstances it is not possible to avoid allowing a SOLUTION to be built with just one more RESOURCE without violating the P-claim.

5. The C-claim means that, once a flub is made, every subsequent move is a flub because every subsequent mover could have correctly challenged. Since only the most recent flub may be challenged, the C-claim makes it possible to win by laying a trap: make a deliberate flub and as soon as the next player moves, challenge him for failing to challenge you.

G. Challenge Rule

Whether or not it is your turn, you may at any time challenge the other player who has just completed a move. You do so by saying "challenge" and specifying which kind of flub you think the mover has made. The move of a RESOURCE to FORBIDDEN, PERMITTED, or REQUIRED is completed when the RESOURCE touches the mat. Prior flubs are insulated by later ones; therefore, you cannot challenge any player except the one who has just completed his play.

COMMENTS:

1. A challenge cannot be retracted once a player has said "challenge".
2. To determine priority in those rare cases where two players say "challenge" simultaneously, a coin should be placed in the centre of the table when the match begins. The first of the simultaneously-challenging players to pick up the coin shall be the challenger; the other player shall be the joiner.

H. Burden-of-Proof Rule

After a challenge, the burden of proof is cast upon the player who, in the particular situation, is claiming that a SOLUTION can be built. The burden of proof is sustained by writing a SOLUTION on a sheet of paper.

COMMENTS:

1. A SOLUTION must, of course, satisfy the conditions imposed by the SOLUTION rule and the previous plays of the RESOURCES into the FORBIDDEN, PERMITTED, or REQUIRED sections.
2. Sometimes the burden of proof will be upon the challenger — namely, when the challenger alleges that there has been a flub by virtue of an A-claim violation or a C-claim violation that stems from a previous A-claim violation. On the other hand, sometimes the burden will be upon the mover — namely, when the challenger alleges that there has been a flub by virtue of a P-claim violation or a C-claim violation that stems from a previous P-claim violation.
3. When a challenger has alleged an A-claim violation or a C-claim violation that stems from a previous A-claim violation, he also has the burden of proving that there was an alternative move that

- (a) did not allow a SOLUTION to be built at most one more RESOURCE that remains, and
- (b) did not violate the P-claim.

L. CORRECTNESS Rule

After a challenge, a player is CORRECT if and only if

- 1) he/she has the burden of proving the possibility of a SOLUTION, and he/she sustains it (by writing one), or
- 2) he/she does not have the burden of proving the possibility of a SOLUTION (somebody else has it), and nobody sustains that burden of proof.

J. Scoring Rules

1. When the players have the opportunity to write a statement candidate to match the norm for that match, a player who successfully writes the norm gets 25 points; others get 0 points.
2. If a challenge is made, then
 - A. the joiner (j) must either join the challenger (c) or the mover (m), and
 - B. if the player whom j joins has the burden of proving the possibility of a SOLUTION, then j must sustain the same burden of proof by independently writing a SOLUTION, and
 - C. if j is CORRECT, then j gets 8 points if he has joined c and 10 points if he has joined m, and
 - D. c gets 10 points if she is CORRECT, and
 - E. m gets 10 points if he is CORRECT, and
 - F. if anyone is INCORRECT, then she gets 6 points.
3. If a force-out is declared, then
 - A. each player who writes a SOLUTION within the specified time limit (usually from one to two minutes) gets 8 points, and
 - B. if the player who declared force-out cannot write a SOLUTION, then he gets 0 points, and
 - C. all other players get 6 points.
4. A player's score for the match is the sum of her two scores — her statement score and her SOLUTION score.

COMMENTS:

1. If the game involves four or more players, then all of the players other than the mover and the challenger are joiners.
2. The effect of the challenge scoring rule is usually (although not always) that one of the two players involved in a challenge scores 10 and the other 6. In some circumstances they both may wind up with 6. j can score 10 when he joins m; but j can score at most 8 by joining c. This places a premium upon being the first player to challenge another's flub.

K. Stalling Rule (optional)

At any time any other player can call "stall" on the player who is

1. deciding whether to challenge, to declare force-out, to ask a question, to move, or to add

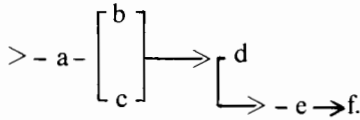
- to the GOAL(S), or
- 2. deciding whom to join after a challenge, or
- 3. trying to write a SOLUTION, or
- 4. trying to ask a question.

The stalling player then has some specified time (usually one to two minutes) to complete what he/she is doing. Failure to meet the deadline loses one point, and another limited time period begins; failure to meet the second deadline loses another point; and so on.

7. SAMPLE MATCHES OF THE PL GAME

A. Match 1 (Example without text).

This first example will be without the text that each of the letters represents. Consider in ARROW-DIAGRAM form the NORM.



Expressed in parenthesized notation, it is:

$$(a \& (b \vee c)) > (d \& (e > f)).$$

And finally, as a parenthesized statement, it is:

IF a AND (b OR c), THEN (d AND IF e, THEN f).

With any one of these representations of the norm available, the ANSWER SOURCE will be able to answer the players' questions about the structure of the norm.

Suppose that Player 1 (P1) starts the match by setting f as the GOAL. The situation in the match can then be summarized as follows:

Ultimate Question

Play	Player	Question	Answer	Move		GOAL(S)	SOLUTION	Answer	
				F	P			OK	Move
1	P1					f			

It is now P2's turn. He analyzes P1's choice and concludes that it is not a FLUB and is not a force-out. P2 also concludes that he should neither challenge nor declare force-out; so, it is safe to move or add a result to the GOAL(S).

P2 asks the question:

abc > def

to which the ANSWER SOURCE responds:

NN -

and then P2 moves the a to PERMITTED. The situation now is:

Ultimate Question

Play	Player	Question	Answer	Move		GOAL(S)	SOLUTION	Answer	
				F	P			OK	Move
1	P1					f			
2	P2	abc>def	NN -		a				

It is now P3's turn. Both she and P1 analyze P2's move; they both conclude that it is not a flub, so neither challenges P2's move. P3 concludes that it is safe to move or add a result to the GOAL(S). P3 asks the question:

.abc > .d

to which the ANSWER SOURCE responds:

YYY

and then P3 adds d to the GOAL(S). The situation now is:

Ultimate Question

Play	Player	Question	Answer	Move		GOAL(S)	SOLUTION	Answer	
				F	P			OK	Move
1	P1					f			
2	P2	abc>def	NN -		a				
3	P3	.abc>.d	YYY			d			

It is now P1's turn again. He and P2 analyze P3's choice to add d to the GOAL(S). They both conclude that it is not a flub. P1 asks the question:

abce > df

to which the ANSWER SOURCE responds:

YYY

and then P1 moves the c to PERMITTED. The situation now is:

Ultimate Question

Play	Player	Question	Answer	Move		GOAL(S)	SOLUTION	Answer	
				F	P			OK	Move
1	P1					f			
2	P2	abc>def	NN -		a				
3	P3	.abc>.d	YYY			d			
4	P1	abce>df	YYY		c				

It is now P2's turn again. He concludes that moving c to PERMITTED is an A-flub, because he believes that the norm is ((a V b) & c) > (d & (e > f)) so that, with one more RESOURCE (namely the e), there is a sufficient set of conditions a c e (a SOLUTION) to reach the GOAL(S) results d and f by application of the norm. So, he makes an A-flub challenge. P3, who believes that the norm is (a & (b V c)) > (d & (e > f)), also concludes that permitting the c allows the same SOLUTION with one more RESOURCE; so, she joins P2. Both have two parts to their burden of proof. Both write the SOLUTION a c e and the OK move Fb. The situation now is:

Ultimate Question

Play	Player	Question	Answer	Move		GOAL(S)	SOLUTION	Answer	
				F	P			OK	Move
1	P1					f			
2	P2	abc>def	NN -		a				
3	P3	.abc>.d	YYY			d			
4	P1	abce>df	YYY		c				
5	P2			CH	A		ace	Fb	
	P3			joins	P2		ace	Fb	

The phase of the PL game in which the players move RESOURCES and add to the GOAL(S) has now ended in this match. All that remains is for at least one of the players to determine how the sentences of the match are structurally related to form the norm. The players now enter a question-asking only phase that will continue until at least one of the players writes the norm in asking an ultimate question. The correctness of the SOLUTIONS and OK moves written by P2 and P3 cannot be evaluated until one of the players writes the norm. After those with the burden of proof have written their SOLUTIONS and OK moves, all of the players have the opportunity to write an ultimate question. The three players ask whether the following are the norm:

- P1 ((a V b) & c) > (d & (e > f))
- P2 Same as P1's
- P3 (a & (b V c)) > (d & (e > f))

to which the ANSWER SOURCE responds:

- M & L (MORE AND LESS)
- M & L (MORE AND LESS)
- CONG. (CONGRATULATIONS).

The situation now is:

Ultimate Question

Play	Player	Question	Answer	Move		GOAL(S)	SOLUTION	Answer OK Move
				F	P R			
1	P1					f		
2	P2	abc>def	N N	-	a			
3	P3	.abc>.d	Y Y Y			d		
4	P1	abce>df	Y Y Y		c			
5	P2		CH A				a c e	Fb
	P3		joins P2				a c e	Fb
6	P1	((a V b) & c) > (d & (e > f))						M & L
	P2	Same as P1's						M & L
	P3	(a & (b V c)) > (d & (e > f))				CONGRATULATIONS!		

The match is over, and P3, who gets the most points in the scoring, is the winner of the match.

SCORING	PLAYER		
	P1	P2	P3
STATEMENT	0	0	25
SOLUTION	6	10	8
TOTAL	6	10	33

An entire match can be briefly summarized, as this one is, by the six-play and SCORING account above.

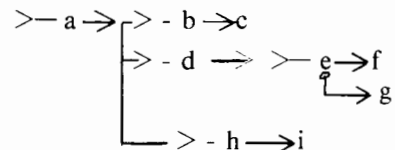
B. Match 2 (Example with text)

Section 161 United States Internal Revenue Code Nonrecognition of Gain or Loss to Corporations

- a. a corporation a party to a reorganization exchanges property, in pursuance of the plan of reorganization, for stock or securities in another corporation a party to the reorganization
- b. the exchange is solely for such stock or securities
- c. no gain or loss shall be recognized
- d. the property received in exchange consists not only of stock or securities permitted by subsection (2) to be received without the recognition of gain, but also of other property or money

- e. the corporation receiving such other property or money distributes it in pursuance of the plan of reorganization
- f. no gain to the corporation shall be recognized from the exchange
- g. the gain, if any, to the corporation shall be recognized, but in an amount not in excess of the sum of such money and the fair market value of such other property so received, which is not so distributed
- h. the property received in exchange consists not only of property permitted by subsection(2) to be received without the recognition of gain or loss, but also of other property or money
- i. no loss from the exchange shall be recognized

The structural relationships between these sentences of this provision are expressed by the ARROW DIAGRAM:



Also by the parenthesized notation:

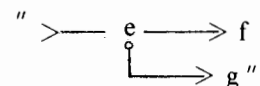
$$a > ((b > c) \& (d > ((e > f) \& (Ne > g).)) \& (h > i)).$$

And also by the parenthesized statement:

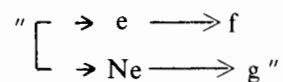
IF a, THEN ((IF b, THEN c), AND (IF d, THEN (IF e, THEN f, BUT OTHERWISE, g)), AND (IF h, THEN i)).

Notice that there is available in the ARROW DIAGRAM form and the parenthesized statement form an abbreviation that is not available in the parenthesized notation form.

In the ARROW DIAGRAM



is used as an abbreviation for



In the parenthesized statement, "(IF e, THEN f, BUT OTHERWISE, g)" is used as an abbreviation for "((IF e, THEN f), AND (IF NOT e, THEN g))". However, in the parenthesized notation there is no "BUT OTHERWISE" notation available in the customary notation to abbreviate the "AND IF NOT THEN" part, so the parenthesized notation form is written out in full as "((e > f) & (Ne > g))" Section 361 written out in UN form as the norm for this match is:

- IF
1. a corporation a party to a reorganization exchanges property, in pursuance of the plan of reorganization, for stock or securities in another corporation a party to the reorganization.
- THEN
2. IF
 - A. the exchange is solely for such stock or

THEN

- B. no gain or loss shall be recognised, AND
3. IF
- A. the property received in exchange consists not only of stock or securities permitted by subscription (2) to be received without the recognition of gain, but also of other property or money.

THEN

- B. IF
1. the corporation receiving such other property or money distributes it in pursuance of the plan of reorganization,

THEN

2. no gain to the corporation shall be recognized from the exchange, BUT

OTHERWISE,

3. the gain, if any, to the corporation shall be recognized, but in an amount not in excess of the sum of such money and the fair market value of such other property so received, which is not so distributed, AND

4. IF

- A. the property received in exchange consists not only of property permitted by subscription (2) to be received without recognition of gain or loss, but also of other property or money

THEN

- B. no loss from the exchange shall be recognized.

P1 starts the match by setting the *i* as the GOAL. P2 asks *abdeh > c f g i* (to which the response is *N Y N*) and then adds *g* to the GOAL(S). P3 then asks *.aNeh > .i* (to which the response is *Y Y Y*) and requires the *h*. The situation at this stage is:

Ultimate Question

Play	Player	Question	Answer	Move		GOAL(S)	SOLUTION	Answer OK Move
				F	P R			
1	P1					<i>i</i>		
2	P2	<i>abdeh > c f g i</i>	<i>N Y N</i>			<i>g</i>		
3	P3	<i>.aNeh > .i</i>	<i>Y Y Y</i>		<i>h</i>			

The *N* to the *abdeh > . . .* part and *Y* to the *. . . > c f g i* part of P2's question indicates that there are more conditions and they are not among the letters used to indicate results in this question. The players can conclude that these additional conditions will either be negates of the indicated conditions or descriptive sentences imbedded in the indicated results. P3's question determined that that *Ne* (NOT *e*) was one of the (perhaps the only) other conditions.

P1 continues the match by asking *.dNe > .g* (to which the response is *Y Y N*) and permitting the *a*. P2 then asks *.a > .c* (to which the response is *Y Y N*) and forbids the *d*. P1 (out of turn) challenges P2, saying that forbidding the *d* is a P-flub. P3, believing that in the norm condition *d* must be met in order to reach result *g*, sees no SOLUTION and, so, joins the challenger. The mover P2 has the burden of proof and offers *abcNeh* as a SOLUTION. At this stage the moving ends, and questioning will continue until somebody detects the norm.

Ultimate Question

Play	Player	Question	Answer	Move		GOAL(S)	SOLUTION	Answer OK Move
				F	P R			
1	P1					<i>i</i>		
2	P2	<i>abdeh > c f g i</i>	<i>N Y N</i>			<i>g</i>		
3	P3	<i>.aNeh > .i</i>	<i>Y Y Y</i>		<i>h</i>			
4	P1	<i>.dNe > .g</i>	<i>Y Y N</i>		<i>a</i>			
5	P2	<i>.a > .c</i>	<i>Y Y N</i>		<i>d</i>			
6	P1		<i>Ch P</i>					
	P3		<i>joins P1</i>					
	P2						<i>abcNeh</i>	

When the players are given the opportunity to ask ultimate questions, P1 asks whether:

$$((a \& b) > (c \& (.d > ((e > f) \& (Ne > g)).):)) \& (h > i)$$

is the norm (to which the response is *M & L*). P2 asks whether:

$$((a \& b) > c) \& ((d \& e) > f) \& (Ne > g) \& (h > i)$$

is the norm (to which the response is *M*). P3 does not have a theory yet about what the norm is and asks no ultimate question.

It is then P1's turn to play, because he is the next player after P3, whose turn it was when P1 interrupted the play with his P-flub challenge. So, P1 asks the classification-relational question *.ade > .f* (to which the response is *Y Y Y*). This questioning part of the play can be summarized by:

Ultimate Question

Play	Player	Question	Answer	Move		GOAL(S)	SOLUTION	Answer OK Move
				F	P R			
7	P1	<i>.ade > .f</i>	<i>Y Y Y</i>					

Ultimate Question

Play	Player	Question	Answer	Move		GOAL(S)	SOLUTION	Answer OK Move
				F	P R			
7	P1	$((a \& b) > (c \& (.d > ((e > f) \& (Ne > g)).):)) \& (h > i)$	<i>M & L</i>					
	P2	$((a \& b) > c) \& ((d \& e) > f) \& (Ne > g) \& (h > i)$	<i>M</i>					
	P3							
8	P1	<i>.abde > .f</i>	<i>Y Y Y</i>					

This is followed by some more ultimate questioning and a classification-relational question by P2.

9	P1	$((a \vee b) > (c \& (.d > ((e > f) \& (Ne > g)).):)) \& (h > i)$	<i>M</i>
	P2	$a > ((b > c) \& ((d \& e) > f) \& (Ne > g) \& (h > i))$	<i>M</i>
	P3	---	
10	P2	<i>.adNe > .g</i>	<i>Y Y Y</i>

Then the match is ended (by P2) in the questions that followed.

11	P1	$(a \vee b) > (c \& (.d > ((e > f) \& (Ne > g)).)) \& (h > i)$	<i>M</i>
	P2	$a > ((b > c) \& (.d > ((e > f) \& (Ne > g)).)) \& (h > i)$	<i>CONG.</i>
	P3	---	

SCORING

PLAYER

	P1	P2	P3
STATEMENT	0	25	0
SOLUTION	10	6	8
TOTAL	10	31	8

Although caught flubbing, P2 was the first (and the only) player to detect the norm; so won the match.

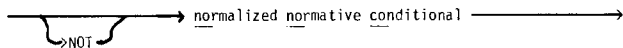
8. DEFINITION OF UNIVERSAL NORM (UN) FORM (and Norm)

The discussion and definition of what is meant when a statement is said to be in UN form is presented here in the form of a series of definitions, and then, more briefly, as a graph. UN form is first related to the idea of a normalized normative conditional and its negation. Then normalized normative conditional is defined in terms of various other ideas.

Universal Norm:

A statement in universal norm (UN) form is one that is

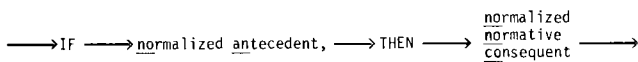
- (1) a normalized normative conditional, or
- (2) the negation of a normalized normative conditional.



Normalized Normative Conditional:

A normalized normative conditional is a statement that consists of

- (1) the word 'IF' followed by
- (2) a normalized antecedent followed by
- (3) the word 'THEN' followed by
- (4) a normalized normative consequent.

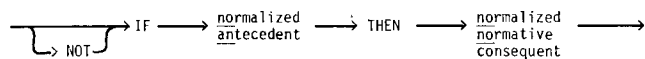


A statement in universal norm (UN) form is by definition a norm; so, the latter term is defined as follows:

norm:

A norm is a statement that consists of

- (1) (a) the word 'IF' followed by
 - (b) a normalized antecedent followed by
 - (c) the word 'THEN' followed by
 - (d) a normalized normative consequent, or
- (2) the negation of a normalized normative conditional like that expressed by (1).



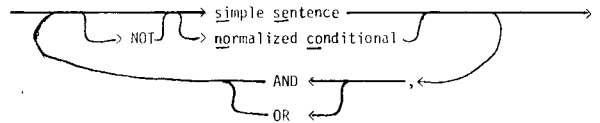
Understanding the definition of norm requires an understanding of the definitions of normalized antecedent and normalized normative consequent. And these, in turn, require understanding of other definitions — all of which are expressed in full below.

normalized antecedent:

A normalized antecedent is a statement that consists of

- (1) a simple sentence, or
- (2) the negation of a simple sentence, or

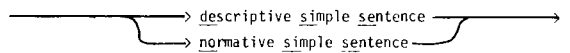
- (3) a normalized conditional, or
- (4) the negation of a normalized conditional, or
- (5) (a) a normalized antecedent followed by
 - (b) the word 'AND' followed by
 - (c) a second normalized antecedent, or
- (6) (a) a normalized antecedent followed by
 - (b) the word 'OR' followed by
 - (c) a second normalized antecedent.



simple sentence:

A simple sentence is a statement that consists of

- (1) a descriptive simple sentence, or
- (2) a normative simple sentence.



descriptive simple sentence:

A descriptive simple sentence is a statement that

- (1) contains no defined structural terms, and
- (2) says something that is not normative, and
- (3) contains no constituent sentences that are related to other constituent sentences by between-sentence structural terms.

normative simple sentence:

A normative simple sentence is a statement that

- (1) contains no defined structural terms, and
- (2) says something that is normative, and
- (3) contains no constituent sentences that are related to other constituent sentences by between-sentence structural terms.

normative:

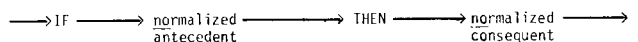
A normative statement is one that

- (1) says that a specified type of act is forbidden, permitted, or obligated, or
- (2) says that some legal person either has or lacks the legal power to create a normative relationship.

normalized conditional:

A normalized conditional is a statement that consists of

- (1) the word 'IF' followed by
- (2) a normalized antecedent followed by
- (3) the word 'THEN' followed by
- (4) a normalized consequent.

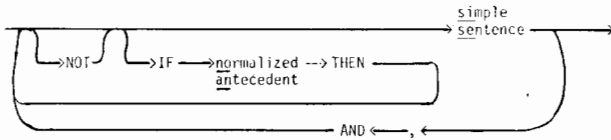


normalized consequent

A normalized consequent is a statement that consists of

- (1) a simple sentence, or
- (2) the negation of a simple sentence, or

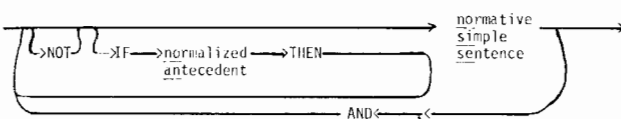
- (3) (a) the word 'IF' followed by
- (b) a normalized antecedent followed by
- (c) the word 'THEN' followed by
- (d) (1) a simple sentence, or
- (2) the negation of a simple sentence, or
- (e) (1) a statement like that expressed by (3), or
- (2) the negation of a statement like (3), or
- (4) the negation of a normalized conditional like that expressed by (3), or
- (5) (a) a normalized consequent followed by
- (b) the word 'AND' followed by
- (c) a second normalized consequent.



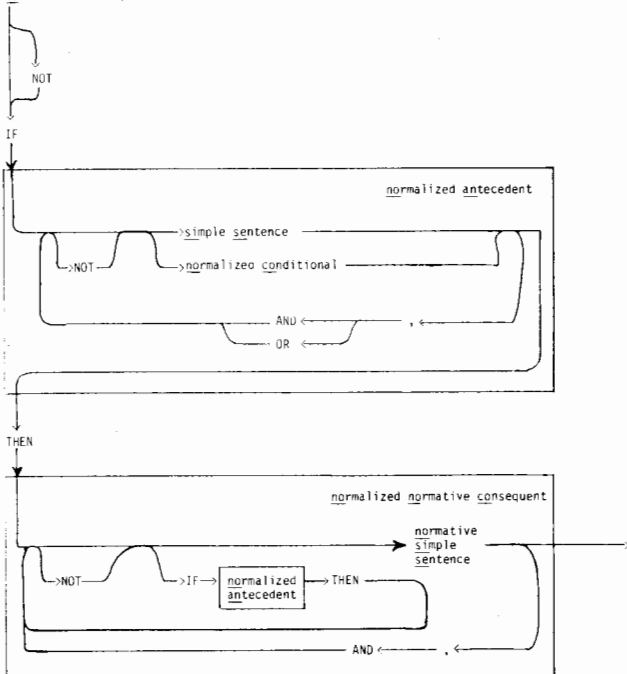
normalized normative consequent:

A normalized normative consequent is a statement that consists of

- (1) a normative simple sentence, or
- (2) the negation of a normative simple sentence, or
- (3) (a) the word 'IF' followed by
- (b) a normalized antecedent followed by
- (c) the word 'THEN' followed by
- (d) (1) a normative simple sentence, or
- (2) the negation of a normative simple sentence, or
- (e) (1) a statement like that expressed by (3), or
- (2) the negation of a statement like (3), or
- (4) the negation of a normalized normative conditional like that expressed by (3), or
- (5) (a) a normalized normative consequent followed by
- (b) the word 'AND' followed by
- (c) a second normalized normative consequent.



Graphic Definition



9. FUNDAMENTAL DEFINED STRUCTURAL TERMS

There are just four fundamental defined structural terms. They are: IF-THEN, AND, OR, and NOT. The use of these and other defined structural terms in their defined sense is indicated by expressing them in capital letters.

It should be mentioned that the defined structural terms dealt with in the current version of the PLAIN LANGUAGE Game are only those that occur between complete sentences. The within-sentence structural terms will be dealt with in a later version of the game. There is ample for legal drafters to reckon with in getting the between-sentence structure of their craft to be well structured.

(a) **IF ... THEN ...**

The statement formed by the words 'IF ... , THEN. . .' with a sentence following the 'IF' and a second sentence following the 'THEN' expresses a conditional, which is such that

1. If the conditional is true, and its antecedent is true, then its consequent is true, and
2. if the truth of its consequent can be logically deduced from the truth of its antecedent, and the truth of its antecedent is logically relevant for the deduced truth of its consequent, then the conditional is true.

(Note: For the conditional 'IF S1, THEN S2', its antecedent is S1 and its consequent is S2.)

Notation: >- a --> b (IF a, THEN b.)

(b) **AND**

The statement formed by the word 'AND' preceded by a sentence and followed by a second sentence expresses a conjunction, which is such that

1. If the conjunction is true, THEN both of its conjuncts are true, and
2. IF both of its conjuncts are true, THEN the conjunction is true.

Notation: >- a - b --> c (IF a AND b, THEN c.)

>- a --> [b (IF a, THEN (b AND c).)

(Note: The AND in antecedents is indicated by '- ', while the AND in consequents is indicated by '['.)

(c) **OR**

The statement formed by the word 'OR' preceded by a sentence and followed by a second sentence expresses a disjunction, which is such that

1. IF the disjunction is true, AND the truth of a third sentence can be logically deduced from the truth of each of its disjuncts, AND the truth of each of those disjuncts is logically relevant for the deduced truth of the third sentence. THEN that third sentence is true, AND
2. IF at least one of its disjuncts is true. THEN the disjunction is true.

Notation: [a] (a or b)
[b]

(d) **NOT**

The statement formed by the word 'NOT' appropriately imbedded within a sentence or the one

formed by the words 'IT IS NOT SO THAT' followed by a sentence expresses a negation, which is such that

1. IF the negation is true,
THEN the original sentence (without the 'NOT' or the 'IT IS NOT SO THAT') is false, AND
2. IF the original sentence is true.
THEN the negation is false.

Notation: Na (NOT a)

10. OTHER DEFINED STRUCTURAL TERMS

It should also be mentioned that all between-sentence structure can be indicated by the fundamental defined structural terms. But, if legal drafters desire to use other between-sentence structural terminology, they can define any such terminology in terms of the fundamental defined structural terms. Nine examples of such other defined structural terms are given below. This is obviously not a complete list of other defined structural terms. It can be added to as legal drafters find it convenient to do so.

(a) IF AND ONLY IF ..., THEN ...

IF AND ONLY IF S1, THEN S2. =df IF S1, THEN S2, AND
IF NOT S1, THEN NOT S2.

>--< S1 --> S2. =df [>- S1 --> S2
>- NS1 --> NS2.

(b) If (For use only with conditionals that have simple consequents)

S1, IF S2. =df IF S2, THEN S1.

S1 >- S2. =df >- S2 --> S1.

(c) IF AND ONLY IF (For use only with conditionals with simple consequents)

S1, IF AND ONLY IF S2. =df IF S2, THEN S1, AND
IF NOT S2, THEN NOT S1.

S1 >--< S2. =df [>- S2 --> S1
>- NS2 --> NS1.

(d) IF ..., THEN AND ONLY THEN ...

IF S1, THEN AND ONLY THEN S2. =df IF S1, THEN S2, AND
IF NOT S1, THEN NOT S2.

>- S1 <--> S2. =df [>- S1 --> S2
>- NS1 --> NS2.

(e) UNLESS

S1, UNLESS S2. =df S1, IF NOT S2.

S1 U S2. =df S1 >- NS2.

UNLESS S2, S1. =df IF NOT S2, THEN S1.

U S2 S1. =df >- NS2 --> S1.

(f) BUT OTHERWISE

IF S1, THEN S2, BUT OTHERWISE, S3. =df IF S1, THEN S2, AND
IF NOT S1, THEN S3.

>- S1 --> S2 =df [>- S1 --> S2
>- NS1 --> S3.